UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/649,478	08/28/2000	Ward M. Chewning III	99144	8425

38823	7590	10/17/2005

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ART UNIT	PAPER NUMBER
2668	

DATE MAILED: 10/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/649,478	CHEWNING ET AL.
	Examiner	Art Unit
	Clemence Han	2668

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *22 July 2005*.

2a) ☒ This action is **FINAL.**   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *2-18 and 21-46* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *2-18, 22-30 and 32-46* is/are rejected.

7) ☒ Claim(s) *21 and 31* is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The text of those sections of Title 35, U.S. Code not included in this action

can be found in a prior Office action.

2.   Claim 2–8, 22, 23, 27–30, 32, 33 and 46 are rejected under 35 U.S.C. 103(a)

as being unpatentable over Iwase et al. (US 6,226,263) in view of McKenna et al.

(US 5,684,967) and further in view of Nodoushani et al. (US Patent 6,563,816).

In regarding to claim 2, Iwase teaches a method for defining a path through

an overall network for communications service between a unit and a service

provider, comprising: storing a topology of an overall network including elements

and links among the elements (Column 1 Line 47–49); receiving a service order for

provision of the communications service between the unit and the service provider

(Column 2 Line 60); and using information from the service order with the

topology to select particular elements from the elements of the overall network and

to select particular links between the particular elements as the path for the

communications service through the overall network (Column 4 Line 22–24).

Iwase, however, fails to teach the overall network comprising at least a first type of

network and a second type of network. McKenna teaches the overall network

comprising at least a first type of network and a second type of network (Column 1

Line 6-9). It would have been obvious to one skilled in the art to modify Iwase to

be used in heterogeneous network as taught by McKenna in order to provide a

single, cohesive picture of the multiple network (Column 2 Line 26-30).

McKenna, also, teaches the overall network comprising a digital subscriber line

(DSL) network or an asynchronous digital subscriber line (ADSL) network; and

wherein creating the topology of the overall network comprising creating the

topology to include the DSL network or the ADSL network (Table 1). Iwase in

view of McKenna, however, fails to teach a digital subscriber line access

multiplexer (DSLAM). Nodoushani teaches a digital subscriber line access

multiplexer 34. It would have been obvious to one skilled in the art to modify

Iwase in view of McKenna to have DSLAM as taught by Nodoushani in order to

provide DSL service to more subscribers 12.

In regarding to claim 3, Iwase teaches using the information from the service

order with the topology comprising mapping the information from the service

order onto the topology (Column 3 Line 62–66).

In regarding to claim 4, Iwase teaches the path comprising a permanent

virtual circuit (PVC) (Column 3 Line 17).

In regarding to claim 5, Iwase teaches assigning an identifier to the path

(Column 3 Line 22).

In regarding to claim 6, Iwase teaches the identifier comprising a unique identifier (Column 1 Line 59–64).

In regarding to claim 7, McKenna teaches prior to storing the topology, creating the topology of the overall network (Column 3 Line 26-35).

In regarding to claim 8, McKenna teaches the overall network comprising a digital subscriber line (DSL) network or an asynchronous digital subscriber line (ADSL) network; and wherein creating the topology of the overall network comprising creating the topology to include the DSL network or the ADSL network (Table 1).

In regarding to claim 22, Iwase teaches the overall network comprising an asynchronous transfer mode (ATM) network; and wherein using the information from the service order with the topology comprises using the information to select a particular element from the ATM network as a part of the path for the communications service through the overall network (Column 1 Line 9–12).

In regarding to claim 23, Iwase teaches the asynchronous transfer mode (ATM) network comprising an ATM switch; and wherein using the information to select the particular element from the ATM network comprises using the information to select the ATM switch as the part of the path (Column 1 Line 44–47).

In regarding to claim 27, Iwase teaches a system for defining a path through an overall network for provision of communications services between a unit and a service provider, comprising: topology of elements and links linking the elements of the overall network (Column 1 Line 47–49); information about the unit and about the communications services to the unit (Column 2 Line 60); and a mapper for mapping the information onto the topology to obtain particular elements from the elements of the overall network and to obtain particular links between the particular elements from the links linking the elements of the overall network, whereby the particular elements and the particular links between the particular elements constitute the path for communications services between the unit and the service provider (Column 4 Line 22–24). Iwase, however, fails to teach the overall network comprising a first type of network and a second type of network. McKenna teaches the overall network comprising at least a first type of network and a second type of network (Column 1 Line 6-9). It would have been obvious to one skilled in the art to modify Iwase to be used in heterogeneous network as taught by McKenna in order to provide a single, cohesive picture of the multiple network (Column 2 Line 26-30). McKenna, also, teaches the overall network comprising a digital subscriber line (DSL) network or an asynchronous digital subscriber line (ADSL) network; and wherein creating the topology of the overall

network comprising creating the topology to include the DSL network or the

ADSL network (Table 1). Iwase in view of McKenna, however, fails to teach a

digital subscriber line access multiplexer (DSLAM). Nodoushani teaches a digital

subscriber line access multiplexer 34. It would have been obvious to one skilled in

the art to modify Iwase in view of McKenna to have DSLAM as taught by

Nodoushani in order to provide DSL service to more subscribers 12.

In regarding to claim 28, Iwase teaches the path comprising a permanent

virtual circuit (PVC) (Column 3 Line 17).

In regarding to claim 29, Iwase teaches assigning an identifier to the path

(Column 3 Line 22).

In regarding to claim 30, Iwase teaches the identifier comprising a unique

identifier (Column 1 Line 59–64).

In regarding to claim 32, Iwase teaches the overall network comprising an

asynchronous transfer mode (ATM) network (Column 1 Line 9–12) including an

ATM switch; wherein the topology of the elements comprises the ATM switch;

and wherein the particular elements comprise the ATM switch so the ATM switch

is included in the path (Column 1 Line 44–47).

In regarding to claim 33, McKenna teaches the overall network comprising a

telecommunications network including a central office serving the unit; wherein

the topology comprises the central office; and wherein the particular elements

comprise the central office so the central office is included in the path (Column 5

Line 35-55).

In regarding to claim 46, Iwase teaches computer readable medium for

performing a method for defining a path through an overall network for

communications service between a unit and a service provider, comprising: logic

for storing a topology of an overall network including elements and links among

the elements (Column 1 Line 47–49); logic for receiving a service order for

provision of the communications service between the unit and the service provider

(Column 2 Line 60); and logic for using information from the service order with

the topology to select particular elements from the elements of the overall network

and to select particular links between the particular elements as the path for the

communications service through the overall network (Column 4 Line 22–24).

Iwase, however, fails to teach the overall network comprising at least a first type of

network and a second type of network. McKenna teaches the overall network

comprising at least a first type of network and a second type of network (Column 1

Line 6-9). It would have been obvious to one skilled in the art to modify Iwase to

be used in heterogeneous network as taught by McKenna in order to provide a

single, cohesive picture of the multiple network (Column 2 Line 26-30).

McKenna, also, teaches the overall network comprising a digital subscriber line

(DSL) network or an asynchronous digital subscriber line (ADSL) network; and

wherein creating the topology of the overall network comprising creating the

topology to include the DSL network or the ADSL network (Table 1). Iwase in

view of McKenna, however, fails to teach a digital subscriber line access

multiplexer (DSLAM). Nodoushani teaches a digital subscriber line access

multiplexer 34. It would have been obvious to one skilled in the art to modify

Iwase in view of McKenna to have DSLAM as taught by Nodoushani in order to

provide DSL service to more subscribers 12.

3.   Claim 9–18 and 34–42 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Iwase et al. in view of McKenna et al. and Nodoushani et al. and

further in view of Waters et al. (US Patent 5,832,069).

        In regarding to claim 9, Iwase teaches a method for defining a path through

an overall network for communications service between a unit and a service

provider, comprising: storing a topology of an overall network including elements

and links among the elements (Column 1 Line 47–49); receiving a service order for

provision of the communications service between the unit and the service provider

(Column 2 Line 60); and using information from the service order with the

topology to select particular elements from the elements of the overall network and

to select particular links between the particular elements as the path for the

communications service through the overall network (Column 4 Line 22–24).

Iwase, however, fails to teach the overall network comprising at least a first type of

network and a second type of network. McKenna teaches the overall network

comprising at least a first type of network and a second type of network (Column 1

Line 6-9). It would have been obvious to one skilled in the art to modify Iwase to

be used in heterogeneous network as taught by McKenna in order to provide a

single, cohesive picture of the multiple network (Column 2 Line 26-30).

McKenna, also, teaches the overall network comprising a digital subscriber line

(DSL) network or an asynchronous digital subscriber line (ADSL) network; and

wherein creating the topology of the overall network comprising creating the

topology to include the DSL network or the ADSL network (Table 1). Iwase in

view of McKenna, however, fails to teach a digital subscriber line access

multiplexer (DSLAM). Nodoushani teaches a digital subscriber line access

multiplexer 34. It would have been obvious to one skilled in the art to modify

Iwase in view of McKenna to have DSLAM as taught by Nodoushani in order to

provide DSL service to more subscribers 12. McKenna, also, teaches prior to

storing the topology, creating the topology of the overall network (Column 3 Line

26-35). Iwase in view of McKenna and Nodoushani, however, does not teach

explicitly creating the topology comprising modeling the elements and modeling

the links among the elements. Waters teaches creating the topology comprising

modeling the elements and modeling the links among the elements (Column 6 Line

30–31). It would have been obvious to one skilled in the art to modify Iwase in

view of McKenna and Nodoushani to model the elements and modeling the links

among the elements as taught by Waters in order to estimate cost (Column 6 Line

31–36).

In regarding to claim 10 and 34, Waters teaches creating the topology

comprising creating the topology to include respective locations of the elements

(Column 12 Line 46).

In regarding to claim 11 and 35, Waters teaches a location of an element

comprising a building location; and wherein creating the topology to include the

respective locations of the elements comprises creating the topology to include the

building location of the element (Column 12 Line 46).

In regarding to claim 12 and 36, Waters teaches a building location of the

element comprising a common location language identifier (CLLI), a network site,

and a local access and transport area (LATA) name; and wherein creating the

topology to include the building location comprises creating the topology to

include the CLLI, the network site, and the LATA name (Column 12 Line 28–30).

In regarding to claim 13 and 37, Waters teaches creating the topology comprising creating the topology to include respective configurations of the elements (Column 12 Line 39–48).

In regarding to claim 14 and 38, McKenna teaches retrieving a configuration of an element from the element; and including the retrieved configuration of the element in the topology (Column 3 Line 17-25).

In regarding to claim 15 and 39, Waters teaches creating the topology comprising creating the topology to include respective locations of the links (Column 10 Line 57 – Column 11 Line 21).

In regarding to claim 16 and 40, Waters teaches a link connecting at least two elements with each element having a location; and wherein creating the topology to include the respective locations of the links comprises creating the topology to include an association among the link, the at least two elements, and each respective location of the at least two elements (Column 10 Line 57 – Column 11 Line 21).

In regarding to claim 17 and 41, Waters teaches creating the topology comprising creating the topology to include respective configurations of the links (Column 10 Line 43–44).

In regarding to claim 18 and 42, Waters teaches wherein a configuration of a link comprises a common location language identifier (CLLI) (Column 12 Line 29), a circuit identifier (Column 10 Line 43–44), and a circuit type (Column 10 Line 44); and wherein creating the topology to include the respective configurations of the links comprises creating the topology to include the CLLI, the circuit identifier, and the circuit type for the link.

4.   Claim 24, 25, 43 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwase et al. in view of McKenna et al. and Nodoushani et al. and further in view of Farris et al. (US Patent 5,881,131).

In regarding to claim 24 and 43, Iwase teaches a method for defining a path through an overall network for communications service between a unit and a service provider, comprising: storing a topology of an overall network including elements and links among the elements (Column 1 Line 47–49); receiving a service order for provision of the communications service between the unit and the service provider (Column 2 Line 60); and using information from the service order with the topology to select particular elements from the elements of the overall network and to select particular links between the particular elements as the path for the communications service through the overall network (Column 4 Line 22–24). Iwase, however, fails to teach the overall network comprising at least a first

type of network and a second type of network. McKenna teaches the overall

network comprising at least a first type of network and a second type of network

(Column 1 Line 6-9). It would have been obvious to one skilled in the art to

modify Iwase to be used in heterogeneous network as taught by McKenna in order

to provide a single, cohesive picture of the multiple network (Column 2 Line 26-

30). McKenna, also, teaches the overall network comprising a digital subscriber

line (DSL) network or an asynchronous digital subscriber line (ADSL) network;

and wherein creating the topology of the overall network comprising creating the

topology to include the DSL network or the ADSL network (Table 1). Iwase in

view of McKenna, however, fails to teach a digital subscriber line access

multiplexer (DSLAM). Nodoushani teaches a digital subscriber line access

multiplexer 34. It would have been obvious to one skilled in the art to modify

Iwase in view of McKenna to have DSLAM as taught by Nodoushani in order to

provide DSL service to more subscribers 12. Iwase in view of McKenna and

Nodoushani, however, does not teach the service order comprising a telephone

number, an identifier for the service provider, and a universal service order code

(USOC). Farris teaches the service order comprising a telephone number, an

identifier for the service provider, and a universal service order code (USOC)

(Column 6 Line 9-29). It would have been obvious to one skilled in the art to

modify Iwase in view of McKenna and Nodoushani to have such detailed service

order as taught by Farris in order to identify both the requester and the requested

service.

In regarding to claim 25 and 44, Iwase teaches a circuit identifier for the

service provider and a virtual path identifier (VPI) for the service provider

(Column 3 Line 22).

5.   Claim 26 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Iwase et al., McKenna et al., Waters et al., Nodoushani et al. and Farris et al.

as applied to claims 2–20, 22-25 and 27-30, 32-44 above respectively. All the

limitations claimed herein are already discussed in the rejections of claims 2–20,

22-25 and 27-30, 32-44 respectively.

Allowable Subject Matter

6.   Claim 21 and 31 are objected to as being dependent upon a rejected base

claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

7.   The following is a statement of reasons for the indication of allowable

subject matter: The prior arts in the record fails to teach a mini-ram (MR) or

"Remote Access Multiplexer" within a structure of the claims.

Response to Arguments

8.   Applicant's arguments filed on July 22, 2005 have been fully considered but

they are not persuasive.

In response to page 17-19, the applicant argues that it is not evident from the

record that the subject matter of Nodoushani used in the rejection was disclosed in

the provisional to which Nodoushani claims priority. A copy of the provisional

application of Nodoushani is accompanied in this present action.

Conclusion

9.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension

of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire

THREE MONTHS from the mailing date of this action. In the event a first reply is

filed within TWO MONTHS of the mailing date of this final action and the

advisory action is not mailed until after the end of the THREE-MONTH shortened

statutory period, then the shortened statutory period will expire on the date the

advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will

be calculated from the mailing date of the advisory action. In no event, however,

will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clemence Han whose telephone number is (571) 272-3158. The examiner can normally be reached on Monday-Thursday 7 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. H

Clemence Han
Examiner
Art Unit 2668

CHIEH M. FAN
PRIMARY EXAMINER